

ABSTRACT OF THE DISCLOSURE

An apparatus for transferring torque magnetically with a primary rotary member and a secondary rotary member. The primary rotary member has permanent magnets mounted circumferentially on a cylinder, the secondary rotary member having a cylindrical geometry with electroconductive material arranged on its outer periphery and parallel to the axes of the rotary members. The secondary rotary member also having magnetically permeable material. The secondary rotary member is placed partially or totally inside the primary rotating member. The secondary rotary member's axial position relative to the primary rotating member can be varied by a suitable mechanical structure. This causes the two rotary members to axially overlap one another more or less as desired. Rotation of the primary rotary member causes rotation of the secondary rotary member, since magnetic flux lines emanating from the permanent magnets mounted on the primary rotating member, cut through all, or part of, the electroconductive material placed on the periphery of the secondary rotary member. This can vary the torque transmitted between the two rotary members, thereby enabling the varying of the rotational speed of the secondary rotary member relative to the primary rotary member.